

## STATE OF SOUTH DAKOTA CLASS SPECIFICATION

**Class Title: Systems Programmer**

**Class Code: 10733**

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### **A. Purpose:**

Installs and maintains systems, integration, and/or database software, hardware, and products to ensure effective systems support and a functioning environment.

### **B. Distinguishing Feature:**

The Systems Programmer is assigned specific system products to maintain, resolves problems, and monitors resource utilization; but still works under the guidance of higher-level systems staff.

The Senior Systems Programmer has primary accountability for optimizing resource utilization; resolving complex operational problems; and providing the installation, maintenance, and operating efficiency of an assigned platform.

The Associate Systems Programmer performs system programming and maintenance under direct supervision of higher-level system staff. Work is limited to a specific system and platform, or a small subset of the total system and its software/hardware.

### **C. Functions:**

*(These are examples only; any one position may not include all of the listed examples nor do the listed examples include all functions which may be found in positions of this class.)*

1. Installs, tests, implements, and maintains system software, hardware, and products to ensure efficient functioning of the system.
  - a. Researches, tests, and reports on new releases of system software.
  - b. Installs new releases when testing phase is completed.
  - c. Customizes, maintains, and debugs system software and utilities.
2. Monitors system software, hardware, and products to identify and resolve system problems.
  - a. Monitors, logs, updates and follows up on transaction abends.
  - b. Identifies, diagnoses, and resolves problems within assigned system.
  - c. Assists clients in problem determination and resolution.
  - d. Provides advice on proper application design that will maximize efficiency.
  - e. Monitors overall backup, recovery, security, and disk space fragmentation to keep the system operational, performing maintenance as needed.
  - f. Monitors overall system performance and recommends improvement procedures for maintaining acceptable levels.
3. Codes or modifies programs for use in tuning and monitoring system, vendor software, and third-party software.
4. Completes maintenance services requests to support overall system operations.
  - a. Moves programs.
  - b. Makes security modifications.
  - c. Makes meta data changes.

5. Gathers information requested by other information, telecommunications, and development staff to aid in the installation, maintenance, and tuning of system software, hardware, and products in their area of expertise.
6. Completes necessary documentation to provide a record of all system procedures.
  - a. Documents installation procedures, maintenance, and settings used for system options.
  - b. Documents programs written to aid in the installation, maintenance, or monitoring of software packages.
7. Performs other work as assigned.

#### **D. Reporting Relationships:**

Typically reports to a higher-level system staff or manager. Does not supervise, but may provide technical advice, work direction, or training to applications and development staff or new employees.

#### **E. Challenges:**

Challenged to mesh existing hardware and software with new or updated versions. This is difficult because it involves determining and correcting system integration problems with a minimum amount of service interruption and to ensure the best possible performance of the systems.

Typical problems include errors in software program logic that result in product failure, program abends, documentation and procedure inconsistencies, readjust software work areas to ensure proper performance, application programming changes, and client requests not supported by the software product/utility used.

#### **F. Decision-making Authority:**

Decisions include recommending new releases of products, proper techniques for database recovery, problem resolution, and recommendations for documentation and procedures.

Decisions referred to a superior include approval of new products and implementation plans, and prioritization of projects.

#### **G. Contact with Others:**

Daily contact with clients for problem resolution, planning, education, and clarification of installation and maintenance procedures; with developers/designers to provide technical consultation, advice, and education; and weekly contact with software vendors to receive technical advice, education, and problem resolution.

## **H. Working Conditions:**

Typical office environment, subject to on-call or after-hours work to resolve systems software problems.

## **I. Knowledge, Skills, and Abilities:**

Knowledge of:

- systems software or telecommunications software analysis, design, testing, debugging and maintenance techniques and practices;
- specific operating system, hardware, and platform supported;
- information management systems, languages, procedures, and controls.

Ability to:

- identify and logically resolve technical problems;
- use system tools and processes;
- effectively communicate problems to vendor representatives;
- work effectively with others.